January 8, 2002

John M. Ross
Northern Indiana Public Service Company
801 East 86th Avenue
Merrillville, Indiana 46410

Re: Registered Construction and Operation Status,
089-14408-00464

Dear Mr. Ross:

The application from Northern Indiana Public Service Company, received on March 8, 2001, has been reviewed. Based on the data submitted and the provisions in 326 IAC 2-5.1, it has been determined that the following gas pipeline heater, to be located at North Hayden Substation, Stateline Road and 185th Avenue, North Hayden, Indiana, is classified as registered:

(a) One (1) natural gas fired heater with a heat input rating of 31.4 MMBtu/hr emitting through stack 1. The unit is designed to heat a water/glycol mixture which in turn heats the gas in the pipeline.

(b) The source is located in Lake County which is considered to be part of the Chicago CMSA which is non-attainment for ozone. Lake County is attainment for CO and lead. The non-attainment portion of Lake County for SO_2 and PM is bounded on the north by Lake Michigan, on the west by the Indiana-Illinois state line, on the south by U.S. 30 from the state line to the intersection of I-65 then following I-65 to the intersection of I-94, then following I-94 to the Lake-Porter county line, and on the east by the Lake-Porter county line. The source is located to the south of this area and is therefore considered within the attainment portion of the county for PM and SO_2.

The following conditions shall be applicable:

1. Pursuant to 326 IAC 5-1-2 (Opacity Limitations) except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), note the North Hayden Substation is not located in the portion of Lake County that requires the more stringent opacity standard such that opacity shall meet the following:

   (a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

   (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of 15 minutes (60 readings) in a 6-hour period as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuos opacity monitor in a six (6) hour period.

2. Pursuant to 326 IAC 2-6 (Emission Reporting), this source is subject to this rule because it has the potential to emit more than 10 tons per year of NO_x, such that:

   (a) The Permittee shall submit an annual emission statement certified pursuant to the requirements of 326 IAC 2-6, including any modifications or amendments to this rule. The annual emission statement shall meet the following requirements:

      (1) Indicate estimated actual emissions of criteria pollutants from the source, in compliance with 326 IAC 2-6 (Emission Reporting);

(b) The annual emission statement covers the twelve (12) consecutive month time period as specified in 326 IAC 2-6. The annual emission statement must be submitted to:

Indiana Department of Environmental Management
Technical Support and Modeling Section, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

(c) The annual emission statement required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.

This registration reflects changes due to an appeal by the source to an earlier registration. The source may operate according to 326 IAC 2-5.5.

An authorized individual shall provide an annual notice to the Office of Air Quality that the source is in operation and in compliance with this registration pursuant to 326 IAC 2-5.1-2(f)(3). The annual notice shall be submitted to:

Compliance Branch
Office of Air Quality
100 North Senate Avenue
P.O. Box 6015
Indianapolis, IN 46206-6015

The annual registration certification should be submitted with the annual emission statement required for 326 IAC 2-6. The submittal should be no later than April 15 of each year, with the annual notice being submitted in the format attached.

An application or notification shall be submitted in accordance with 326 IAC 2 to the Office of Air Quality (OAQ) if the source proposes to construct new emission units, modify existing emission units, or otherwise modify the source which may increase the potential emission of any criteria pollutant to 25 tons per year or more, or any individual HAP to 10 tons per year or more or any combination of HAPs to 25 tons per year or more, from the equipment covered in this registration.

Sincerely,

Original Signed by Paul Dubenetzky
Paul Dubenetzky, Chief
Permits Branch
Office of Air Quality

ERG/RB

cc: File - Lake County
Lake County Health Department
Air Compliance - Ramesh Tejuja
Northwest Regional Office
Permit Tracking - Sara Cloe
Technical Support and Modeling - Michele Boner
Compliance Data Section - Karen Nowak

Registration
Annual Notification

This form should be used to comply with the notification requirements under 326 IAC 2-5.1-2(f)(3)

Company Name:	**Northern Indiana Public Service Company**
Address:	**Stateline Road and 185th Avenue**
City:	**North Hayden, Indiana 46356**
Authorized individual:	**Manager of Gas Systems Operation**
Phone #:	**(219) 647-5240**
Registration #:	**089-14408-00464**

I hereby certify that NIPSCO - North Hayden Substation is still in operation and is in compliance with the requirements of Registration 089-14408-00464.

Name (typed):
Title:
Signature:
Date:

Indiana Department of Environmental Management
Office of Air Quality

Technical Support Document (TSD) for a Registered Source

Source Background and Description

Source Name:	Northern Indiana Public Service Company - North Hayden Substation
Source Location:	Stateline Road and 185th Avenue, North Hayden, Indiana 46356
County:	Lake
SIC Code:	4924
Operation Permit No.:	089-14408-00464
Permit Reviewer:	ERG/RB

The Office of Air Quality (OAQ) has reviewed an application from Northern Indiana Public Service Company (NIPSCO) relating to the construction and operation of a gas pipeline heater at the North Hayden Substation.

The source was previously issued a registration (089-14057-00464) which they appealed. The following changes were made based on discussions with the source:

(a) Corrected “Tonnes” to “Tons” in Condition 2.

(b) Removed Condition 2(a)2.

(c) The reporting period in 2(b)1 was changed to be consistent with the requirements of 326 IAC 2-6.

(d) Removal reference to submittal date for emissions reporting.

(e) Changed the due date for the annual notification to April 15, at which time emissions reporting is also due.

(f) Added a statement that the annual notification be considered on time if post marked on or before the due date.

(g) Changed the authorized individual in the Annual Notification to the Manager of Gas Systems Operations.

(h) Revised and clarified the county attainment status in TSD.

Permitted Emission Units and Pollution Control Equipment

(a) One (1) natural gas fired pipeline heater with a heat input rating of 31.43 MMBtu/hr, emitting through Stack 1. The unit is designed to heat a water/glycol mixture which in turn heats the gas in the pipeline.

Unpermitted Emission Units and Pollution Control Equipment

There are no unpermitted facilities operating at this source during this review process.

New Emission Units and Pollution Control Equipment Receiving Prior Approval

There are no new units or pollution control equipment included in this application.

Existing Approvals

Registration 089-14057-00464 issued April 30, 2001.

This registration reflects changes agreed upon through the appeal process.

Enforcement Issue

There are no enforcement actions pending.

Stack Summary

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (^{0}F)
1	Heater	38	3.46	12,848	750

Recommendation

The staff recommends to the Commissioner that the construction and operation be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

A complete application for the purposes of this review was received on March 8, 2001.

Emission Calculations

See Appendix A of this document for detailed emissions calculations (pages 1 and 2).

Potential To Emit Before Controls

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as “the maximum capacity of a stationary source or emissions unit to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA, the department, or the appropriate local air pollution control agency.”

Pollutant	Potential To Emit (tons/year)
PM	1.0
PM-10	1.0
SO_2	0.1
VOC	0.8
CO	11.6
NO_x	13.8
Single HAP	0.2
Total HAP	0.2

(a) The potential to emit (as defined in 326 IAC 2-7-1(29)) of pollutants are less than 25 tons per year of VOC and NO_x and less than 100 tons per year for all other criteria pollutants. Therefore, the source is not subject to the provisions of 326 IAC 2-7.

(b) The potential to emit (as defined in 326 IAC 2-7-1(29)) all criteria pollutants is less than 25 tons per year. Therefore, the source is not subject to the provisions of 326 IAC 2-6.1.

(c) The potential to emit (as defined in 326 IAC 2-7-1(29)) CO and NO_x are greater than levels listed in 326 IAC 2-1.1-3(d)(1), therefore the source is subject to the provisions of 326 IAC 2-5.5.1.

(d) The potential to emit (as defined in 326 IAC 2-7-1(29)) of any single HAP is less than ten (10) tons per year and/or the potential to emit (as defined in 326 IAC 2-7-1(29)) of a combination of HAPs is less than twenty-five (25) tons per year. Therefore, the source is not subject to the provisions of 326 IAC 2-7.

(e) This source is not one of the 28 listed sources.

County Attainment Status

The source is located in the portion of Lake County which is classified as follows:

Pollutant	Status
PM-10	Attainment
SO_2	Attainment
Ozone	Severe
CO	Attainment
Lead	Attainment

The source is located in Lake County which is considered to be part of the Chicago CMSA which is non-attainment for ozone. Lake is attainment for CO and lead. The non-attainment portion of Lake County for SO_2 and PM is bounded on the north by Lake Michigan, on the west by the Indiana-Illinois state line, on the south by U.S. 30 from the state line to the intersection of I-65 then following I-65 to the intersection of I-94, then following I-94 to the Lake-Porter county line, and on the east by the Lake-Porter county line. The source is located to the south of this area and is therefore considered within the attainment portion of the county for PM and SO_2.

(a) Volatile organic compounds (VOC) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Lake County has been designated as non-attainment for ozone. VOC emissions were reviewed pursuant to the requirements for Emission Offset, 326 IAC 2-3.

(b) Lake County has been classified as attainment for carbon monoxide (CO) and oxides of nitrogen (NOx). Therefore, CO and NOx emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

(c) The portion of Lake County where the North Hayden Substation is located has been classified as attainment for PM10 and SO_2. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD) 326 IAC 2-2 and 40 CFR 52.21.

Source Status

New Source PSD Definition (emissions after controls, based on 8,760 hours of operation per year at rated capacity and/ or as otherwise limited):

Pollutant	Emissions (ton/yr)
PM	1.0
PM10	1.0
SO_2	0.1
VOC	0.8
CO	11.6
NO_x	13.8

(a) This source is not a major stationary source because VOC, NO_x, PM, and SO_2 are not emitted at a rate of 100 tons per year or greater and VOC and NO_x are not emitted at a rate of 25 tons per year or greater. Therefore, pursuant to 326 IAC 2-3, the Emission Offset requirements do not apply.

Part 70 Permit Determination

326 IAC 2-7 (Part 70 Permit Program)

This source is not subject to the Part 70 Permit requirements because the potential to emit (PTE) of:

(a) each criteria pollutant is less than 100 tons per year,

(b) a single hazardous air pollutant (HAP) is less than 10 tons per year, and

(c) any combination of HAPs is less than 25 tons/year.

Federal Rule Applicability

(a) There are no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) applicable to this source.

(b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs) (326 IAC 14 and 40 CFR Part 63) applicable to this source.

State Rule Applicability - Entire Source

326 IAC 2-6 (Emission Reporting)

This source is subject to 326 IAC 2-6 (Emission Reporting), because it has the potential to emit more than ten (10) tons per year of NO_x. Pursuant to this rule, the owner/operator of the source must annually submit an emission statement for the source. The annual statement must contain the minimum requirement as specified in 326 IAC 2-6-4. The submittal should cover the period defined in 326 IAC 2-6-2(8)(Emission Statement Operating Year).

326 IAC 5-1 (Visible Emissions Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), note that the North Hayden Substation is not located in the portion of Lake County that requires the more stringent opacity standard as provided in 326 IAC 5-1-1(C)4 such that opacity shall meet the following, unless otherwise stated in this permit:

(a) Opacity shall not exceed an average of forty percent (40%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

State Rule Applicability - Individual Facilities

326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))

The operation of gas pipeline heater will emit less than 10 tons per year of a single HAP or 25 tons per year of a combination of HAPs. Therefore, 326 IAC 2-4.1 does not apply.

326 IAC 8-1-6 (New Facilities - General Reduction Requirement)

This source does not have potential VOC emissions equal to or greater than twenty five (25) tons per year, therefore this source is not subject to the provisions of 326 IAC 8-1-6.

Conclusion

The construction and operation of this gas pipeline heater shall be subject to the conditions of the attached Registration 089-14408-00464.

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
Small Industrial Boiler

Company Name: NIPSCO - North Hayden Substation
Address City IN Zip: 91st Avenue and Chase Street, North Hayden, Indiana 46356
CP: 089-14408
Plt ID: 089-00464
Reviewer: ERG/RB
Date: March 29, 2001

Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr
31.4	275.3

	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	7.6	7.6	0.6	100.0 **see below	5.5	84.0
Potential Emission in tons/yr	1.0	1.0	0.1	13.8	0.8	11.6

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.
**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology

All emission factors are based on normal firing.
MMBtu = 1,000,000 Btu
MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu
Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton
Note: Check the applicable rules and test methods for PM and PM10 when using the above emission factors to confirm that the correct factor is used (i.e., condensable included/not included).
See page 2 for HAPs emissions calculations.

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
Small Industrial Boiler
HAPs Emissions

Company Name: NIPSCO - Vector Crown Point Substation
Address City IN Zip: 91st Avenue and Chase Street, North Hayden, Indiana 46356
CP: 089-14408
Plt ID: 089-00464
Reviewer: ERG/RB
Date: March 29, 2001

HAPs - Organics

	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene
Emission Factor in lb/MMcf	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03
Potential Emission in tons/yr	2.891E-04	1.652E-04	1.032E-02	2.478E-01	4.681E-04

HAPs - Metals

	Lead	Cadmium	Chromium	Manganese	Nickel
Emission Factor in lb/MMcf	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03
Potential Emission in tons/yr	6.883E-05	1.514E-04	1.927E-04	5.231E-05	2.891E-04

Methodology is the same as page 1.

The five highest organic and metal HAPs emission factors are provided above.
Additional HAPs emission factors are available in AP-42, Chapter 1.4.